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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Casimer K. Salys
International Business Machines Corporation
Intellectual Property Law Dept., Internal Zip 4054
11400 Burnet Road
Austin, TX 78758

EXAMINER	
KLINGER, SCOTT M	

ART UNIT	PAPER NUMBER
2153	

DATE MAILED: 02/24/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/736,349	BRODSKY ET AL.	
	Examiner	Art Unit	
	Scott M. Klinger	2153	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE ____ MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on *18 October 2004*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-7,9-15 and 17-23* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-7,9-15 and 17-23* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claims 1-7, 9-15, and 17-23 are pending.

Claims 8, 16, and 24 have been cancelled.

Response to Arguments

Applicants arguments are based on amendments to the claims. The amendments necessitated further consideration and new grounds of rejection, shown below.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1, 9, 10, 17, and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Najork et al. (U.S. Patent Number 6,301,614, hereinafter "Najork") in view of Brandman et al. ("Crawler-Friendly Web Servers" September 2000, hereinafter "Brandman"). Najork discloses a system and method for efficient representation of data set addresses in a web crawler.

In referring to claim 1, Najork shows substantial features of the claimed invention, including:

- Querying a web site server by a crawler program, wherein at least one page of the web site has a reference for executing by a browser to produce an address for a next page; parsing such a reference from one of the web pages by the crawler program and sending the reference to an applet running in the browser:

"The thread then downloads the document corresponding to the URL, and processes the document (162). That processing may include indexing the words in the document so as to make the document accessible via a search engine. However, the only processing of the document that is relevant to the present discussion is that the main procedure identifies URL's in the downloaded document that are candidates for downloading and processing (step 162). Typically, these URL's are found in hypertext links in the document being processed." (Najork, col. 4, line 62 – col. 5, line 4)

- Determining the address for the next page by the browser responsive to the reference and sending the address to the crawler:

  "The web crawler thread determines the URL of the next document to be downloaded (step 160), typically by retrieving it from a queue data structure (not shown)." (Najork, col. 4, lines 59-62)

However, Najork is silent as to the crawling of dynamic web pages. Najork does not explicitly show the reference is specified by a script. Nonetheless this feature is well known in the art and would have been an obvious addition to the system disclosed by Najork as evidenced by Brandman.

In analogous art, Brandman discloses that web crawlers request pages from servers in the same manner as a web surfer (a person using a web browser). Brandman shows: *"A web server serves Hypertext Transfer Protocol (HTTP) requests (e.g., GET and POST) from web surfers and crawlers. Given a request, the server responds with either (1) static pages (e.g., a person's home page), or (2) dynamically generated pages (e.g., from a database in response to some user input). Currently, a web server treats a crawler in the same fashion as it treats a web surfer. That is, the crawler has to request for a web page just like a surfer."* (Brandman, section 1, paragraphs 3-4)

Given these teachings, a person of ordinary skill in the art would have readily recognized the desirability and advantages of implementing the system of Najork so as to request dynamic web pages in the same manner as a web surfer, such as taught by Brandman, in order to allow the searching of dynamically generated web sites.

In referring to claim 9, Najork shows substantial features of the claimed invention, including:

- First instructions for querying a web site server by a crawler program, wherein at least one page of the web site has a reference for executing by a browser to produce an address for a next page; second instructions for parsing such a reference from one of the web pages by the crawler program and sending the reference to an applet running in the browser:

  Najork, col. 4, line 62 – col. 5, line 4 (see full quote above)
- Third instructions for determining the address for the next page by the browser responsive to the reference and sending the address to the crawler:

  Najork, col. 4, lines 59-62 (see full quote above)

However, Najork is silent as to the crawling of dynamic web pages. Najork does not explicitly show the reference is specified by a script. Nonetheless this feature is well known in the art and would have been an obvious addition to the system disclosed by Najork as evidenced by Brandman.

In analogous art, Brandman discloses that web crawlers request pages from servers in the same manner as a web surfer (a person using a web browser). Brandman shows: *Brandman, section 1, paragraphs 3-4* (see full quote above)

Given these teachings, a person of ordinary skill in the art would have readily recognized the desirability and advantages of implementing the system of Najork so as to request dynamic web pages in the same manner as a web surfer, such as taught by Brandman, in order to allow the searching of dynamically generated web sites.

In referring to claim 17, Najork shows substantial features of the claimed invention, including:

- A processor connected a network:

  Najork, Fig. **1** shows a processor **106** connected to a network **110**
- A storage device connected to the processor and the network; the storage device is for storing a program for controlling the processor:

  Najork, Fig. **1** shows a storage device **118** storing web crawler program **140**

- Querying a web site server by the crawler, wherein at least one page of the web site has a reference for executing by the browser to produce an address for a next page; parsing such a reference from one of the web pages and sending the reference to an applet running in the browser:

  Najork, col. 4, line 62 – col. 5, line 4 (see full quote above)
- Determining the address for the next page by the browser responsive to the reference and sending the address to the crawler:

  Najork, col. 4, lines 59-62 (see full quote above)

However, Najork is silent as to the crawling of dynamic web pages. Najork does not explicitly show the reference is specified by a script. Nonetheless this feature is well known in the art and would have been an obvious addition to the system disclosed by Najork as evidenced by Brandman.

In analogous art, Brandman discloses that web crawlers request pages from servers in the same manner as a web surfer (a person using a web browser). Brandman shows: *Brandman, section 1, paragraphs 3-4* (see full quote above)

Given these teachings, a person of ordinary skill in the art would have readily recognized the desirability and advantages of implementing the system of Najork so as to request dynamic web pages in the same manner as a web surfer, such as taught by Brandman, in order to allow the searching of dynamically generated web sites.

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Claims 2, 10, and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Najork in view of Brandman and in further view of Albert et al. (U.S. Patent Number 6,735,169, hereinafter "Albert"). Although Najork in view of Brandman shows substantial features of the claimed invention, Najork in view of Brandman does not show a resolver file indicating the IP address of a proxy server as the address of the web site. Nonetheless this feature is well known in the art and would have been an obvious modification to the system disclosed by Najork in view of Brandman as evidenced by Albert.

In analogous art, Albert discloses cascading multiple services on a forwarding agent. Albert, Fig. shows a client 304 sees proxy 302 as the web site 310

Given these teachings, a person of ordinary skill in the art would have readily recognized the desirability and advantages of modifying the system of Najork in view of Brandman so as to use resolver file indicating the IP address of a proxy server as the address of the web site, such as taught by Albert, in order to provide load balancing for the web site.

Claims 4-6, 12-14, 20-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Najork in view of Brandman and in further view of Challenger et al. (U.S. Patent Number 6,026,413, hereinafter "Challenger").

In referring to claims 4, 12, and 20, although Najork in view of Brandman shows substantial features of the claimed invention, including the method and apparatus of claims 1, 9, and 17 (see 103 rejections above), Najork in view of Brandman does not show selecting non-hypertext-link parameters to dynamically generate web pages. Nonetheless this feature is well known in the art and would have been an obvious modification to the system disclosed by Najork in view of Brandman as evidenced by Challenger.

In analogous art, Challenger discloses determining how changes to underlying data affect cached objects. Challenger, Fig. **1C** shows the caching of dynamically generated web pages and their dependencies.

Given these teachings, a person of ordinary skill in the art would have readily recognized the desirability and advantages of modifying the system of Najork in view of Brandman so as to access the dynamically generated web pages through the operations particular the web site upon which they reside, such as taught by Challenger, in order to cache them and increase the speed in which previously viewed web pages are accessed.

In referring to claims 5, 13, and 21, although Najork in view of Brandman shows substantial features of the claimed invention, including the method and apparatus of claims 1, 9, and 17 (see 103 rejections above), Najork in view of Brandman does not show caching dynamically

generated web pages. Nonetheless this feature is well known in the art and would have been an obvious modification to the system disclosed by Najork in view of Brandman as evidenced by Challenger.

In analogous art, Challenger discloses determining how changes to underlying data affect cached objects. Challenger shows processing the server generated web pages to generate corresponding processed versions of the web pages, so that the processed versions can be served in response to future queries, reducing dynamic generation of web pages by the server: Challenger, Fig. **1C** shows the caching of dynamically generated web pages and their dependencies.

Given these teachings, a person of ordinary skill in the art would have readily recognized the desirability and advantages of modifying the system of Najork in view of Brandman so as to cache dynamically generated web pages, such as taught by Challenger, in order to increase the speed in which previously viewed web pages are accessed.

In referring to claims 6, 14, and 22, Najork in view of Brandman and in further view of Challenger shows,

- The system of claims 5, 13, and 21 (see 103 rejection above)
- At least a first such server generated web page has included in it an operation that would cause the server to dynamically generate a second web page if the first page were used to generate further requests to the server, and removing the operation from the first server generated web page and replacing the operation with a reference to a version of another of the server generated web pages:

  Challenger, Fig. **1C** shows the caching of dynamically generated web pages and their dependencies. Said dependencies used to replace the original references to web pages.

Claims 7, 15, and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Najork in view of Challenger et al. (U.S. Patent Number 6,026,413, hereinafter "Challenger").

In referring to claim **7**, Najork shows substantial features of the claimed invention, including querying a web site server by a crawler program responsive to references from one web page to another in the web site, wherein the queries are for causing the server to generate web pages, at least one of the web pages being dynamically generated: *Najork, col. 4, line 62 – col. 5, line 4* (see full quote above)

However, Najork does not show caching dynamically generated web pages. Nonetheless this feature is well known in the art and would have been an obvious modification to the system disclosed by Najork as evidenced by Challenger.

In analogous art, Challenger discloses determining how changes to underlying data affect cached objects. Challenger shows processing the server generated web pages to generate corresponding processed versions of the web pages, so that the processed versions can be served in response to future queries, reducing dynamic generation of web pages by the server: Challenger, Fig. **1C** shows the caching of dynamically generated web pages and their dependencies.

Given these teachings, a person of ordinary skill in the art would have readily recognized the desirability and advantages of modifying the system of Najork so as to cache dynamically generated web pages, such as taught by Challenger, in order to increase the speed in which previously viewed web pages are accessed.

In referring to claim 15, Najork shows substantial features of the claimed invention, including first instructions for querying a web site server by a crawler program responsive to references from one web page to another in the web site, wherein the queries are for causing the server to generate web pages, at least one of the web pages being dynamically generated: *Najork, col. 4, line 62 – col. 5, line 4* (see full quote above)

However, Najork does not show caching dynamically generated web pages. Nonetheless this feature is well known in the art and would have been an obvious modification to the system disclosed by Najork as evidenced by Challenger.

In analogous art, Challenger discloses determining how changes to underlying data affect cached objects. Challenger shows instructions for processing the server generated web pages to generate corresponding processed versions of the web pages, so that the processed versions can be served in response to future queries, reducing dynamic generation of web pages by the server: Challenger, Fig. **1C** shows the caching of dynamically generated web pages and their dependencies.

Given these teachings, a person of ordinary skill in the art would have readily recognized the desirability and advantages of modifying the system of Najork so as to cache dynamically generated web pages, such as taught by Challenger, in order to increase the speed in which previously viewed web pages are accessed.

In referring to claim 23, Najork shows substantial features of the claimed invention, including:

- A processor connected to a network:
  Najork, Fig. **1** shows a processor connected to a network
- A storage device connected to the processor and the network, wherein the storage device is for storing a program for controlling the processor, and wherein the processor is operative with the program to execute a crawler program:
  Najork, Fig. **1** shows a storage device **118** storing web crawler program **140**
- A browser program for querying a web site server by the crawler responsive to references from one web page to another in the web site, wherein the queries are for causing the server to generate web pages, at least some of the web pages being dynamically generated; and
  Najork, col. 4, line 62 – col. 5, line 4 (see full quote above)

However, Najork does not show caching dynamically generated web pages. Nonetheless this feature is well known in the art and would have been an obvious modification to the system disclosed by Najork as evidenced by Challenger.

In analogous art, Challenger discloses determining how changes to underlying data affect cached objects. Challenger shows processing the server generated web pages to generate corresponding processed versions of the web pages, so that the processed versions can be served in response to future queries, reducing dynamic generation of web pages by the server: Challenger, Fig. **1C** shows the caching of dynamically generated web pages and their dependencies.

Given these teachings, a person of ordinary skill in the art would have readily recognized the desirability and advantages of modifying the system of Najork so as to cache dynamically generated web pages, such as taught by Challenger, in order to increase the speed in which previously viewed web pages are accessed.

Claims 3, 11 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Najork in view of Brandman in further view of Albert and in further view of Yoshida et al. (U.S. Patent Number 6,748,418, hereinafter "Yoshida"). Although Najork in view of Brandman in further view of Albert shows substantial features of the claimed invention, including the system of claims 11 and 19 (see 102 rejection above), Najork in view of Brandman in further view of Albert does not show adding an onload attribute to one of the web pages by the proxy. Nonetheless this feature is well known in the art and would have been an obvious modification to the system disclosed by Najork in view of Brandman in further view of Albert as evidenced by Yoshida.

In analogous art, Yoshida discloses a technique for permitting collaboration between web browsers and adding content to HTTP messages bound for web browsers. Yoshida shows adding an onload attribute to one of the web pages by the proxy:

"The HTTP message editor 123 specifies the script or help HTML to be displayed by referring to the help DB 151 and the script DB 153 based on the HTTP message delivered by 15 the HTTP message checker 125 and the rank and inserts the following program written in JavaScript into the HTTP message.

function openScript(url) {

window.open (url, "help_window");

}

<body onLoad="openScript (\"High_Level_Script\")>

</body>" (Yoshida, col. 10, lines 52-64)

Given these teachings, a person of ordinary skill in the art would have readily recognized the desirability and advantages of modifying the system of Najork in view of Brandman in further view of Albert so as to add an onload attribute to one of the web pages a proxy, such as taught by Yoshida, in order to allow the web crawler to know when the page is fully loaded.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Scott M. Klinger whose telephone number is (703) 305-8285. The examiner can normally be reached on M-F 7:00am - 3:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenn Burgess can be reached on (703) 305-4792. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Scott M. Klinger
Examiner
Art Unit 2153

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